

STROKE AND EXERCISE

PUBLIC

WHAT IS STROKE?

A stroke happens when the blood supply to the brain is suddenly interrupted. There are two main causes of stroke. Most commonly, an artery in the brain is blocked by a clot, stopping normal blood flow and the delivery of oxygen and nutrients to the brain area beyond (ischemic stroke). This occurs in around 80% of cases of stroke. The second cause is through a break in the wall of a blood vessel, leading to a bleed in the brain (haemorrhagic stroke). This disruption in blood flow may lead to temporary or permanent damage to the brain. The range of symptoms from a stroke may include: weakness and/or numbness of the face, arm or leg on either side of the body, loss of balance or falling, dizziness, fatigue, difficulty speaking or understanding others, difficulty thinking and remembering, blurring or reduced vision in one or both eyes, and difficulty swallowing.

Symptoms can appear alone or in combination and last for hours, days, months, or even years. If symptoms go away within 24 hours, this is usually called a transient ischemic attack (TIA). A TIA should not be ignored. Investigating the cause of a TIA and subsequent management of any risk factors may prevent a stroke. The degree of recovery and the speed of recovery from stroke varies between individuals and recovery may take many years.

HOW DOES EXERCISE HELP?

Physical activity and exercise levels are reported to be very low in stroke survivors. Once a person is affected by stroke, regular exercise and staying physically active can also help reduce the risk of further strokes and improve post-stroke recovery. Reported benefits include:

- Improved walking ability and ability to complete day-to-day activities
- Decreased number of falls and improved confidence
- Improved ability to return to leisure activities
- Improved strength, endurance and fitness
- Improved balance and coordination
- Improved flexibility
- Improved mood
- Improved alertness and thinking ability
- Lowered blood pressure and cholesterol

WHAT EXERCISE IS BEST FOR PEOPLE WITH STROKE?

The type of exercise or physical activity that works best for an individual with stroke will depend on the extent of their symptoms, any other medical conditions they may have such as heart problems and diabetes, their exercise preferences, and their ability to get out and about. Doing light-intensity exercise “little and often” is beneficial for people after a stroke and physical activity guidelines recommend that doing something is better than doing nothing. Breaking up sitting time and avoiding long periods of sitting is also important. Fatigue is often reported as a barrier to exercise, but there is some evidence that exercise can help, so people with stroke, including those with fatigue, should try to find ways to participate in regular exercise or physical activity. There has been a lot of research testing a range of exercise approaches to help people with stroke at different points in the recovery process. This fact sheet focuses on exercises suitable for people who are living in the community with stroke.

CARDIOVASCULAR FITNESS AND ENDURANCE (AEROBIC) EXERCISES

- Can be performed in a variety of settings including home, gym and community, and may include group work.
- Stationary cycle, leg or arm ergometry, elliptical trainers, walking on a treadmill, graded walking programs, and climbing stairs can improve fitness.
- Circuit classes (group work) and functional exercise (e.g. standing up, walking or climbing stairs) can also improve endurance.
- Initially start working at a light-intensity (1-2 on a scale out of 10) and work up to a moderate-intensity (3-5 out of 10) as you get fitter. You may find that you can even work at a higher intensity (6-7 out of 10) if you exercise regularly.
- Aim for doing some form of aerobic exercise 3-5 days a week and work up to 20-60 minutes per session.
- Short, frequent bouts of activity are good too - the beneficial effects of exercise are cumulative. Remember that doing some exercise is better than doing none!
- Increase either duration or intensity gradually (don't increase both at once).
- Using activity trackers (e.g. Fitbits, pedometers) can help you to keep track of your physical activity and monitor how many steps you take or how much time you spend sitting each day. This can be a great motivator for setting and achieving your activity and exercise goals.

STRENGTHENING EXERCISES

- Can be performed at home, in a community centre, at a rehabilitation setting, or local gym.
- Resistance training of arms, legs and trunk can be achieved using free weights, weight-bearing or partial weight-bearing activities, machine weights, elastic bands, spring coils or pulleys.
- Progressive resistance training with heavy weights and low repetitions are valuable.
- 2-3 days a week; alternate muscle groups if you do strengthening exercises more regularly.

BALANCE EXERCISES

- Completing your everyday activities and add in a focus on walking faster (but safely), moving around and over obstacles, and up and down stairs and slopes can improve balance.
- Tai Chi can improve balance and coordination and may help reduce falls.
- Playing active video or computer games can be a fun way to improve hand-eye co-ordination and balance.

FINDING THE RIGHT TYPE OF EXERCISE FOR YOU

The great thing about exercise is that there are many different types of exercise and there is something for everyone - from doing light jobs around the house, to going for a walk in the park or shops, to dancing to music, to sweating it out at the gym. A typical exercise session looks different for different people. It will depend on what you enjoy, what you're capable of, and what your fitness and mobility goals are.

There are barriers to exercise for everyone, but even more so after having a stroke and these can include your level of physical ability, changes to thinking, memory and mood, fatigue, loss of confidence, lack of money, and a lack of support. The wonderful thing is that exercise can improve most of these barriers!

A Physiotherapist or Accredited Exercise Physiologist can help you address these barriers and get started on a program that works best for you. Stroke survivors with significant limitations may benefit from being referred to a Neurological Physiotherapist who have advanced training and experience. Exercise is safe to perform after having a stroke, however, before commencing a cardiovascular fitness training program, a medical review with your doctor is recommended to discuss clearance.

TOP TIPS FOR GETTING AND STAYING ACTIVE

Most importantly, give it a go and set yourself a goal - it doesn't matter how big or small it is. Choose a form of exercise or activity that you like, make it part of your routine, exercise with a friend, and try to break up your sitting time and do more light jobs around the house.

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RESOURCES & FURTHER INFORMATION

Exercise is Medicine Australia www.exerciseismedicine.org.au

Exercise Right www.exerciseright.com.au

Find a Physiotherapist <https://choose.physio/find-a-physio>

Find an Accredited Exercise Physiologist www.essa.org.au

National Stroke Foundation www.strokefoundation.org.au

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